



## State and Private Forestry Fact Sheet Virginia 2021



### Investment in State's Cooperative Programs

Program	FY 2020 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$1,014,077
Forest Legacy	\$3,060,000
Forest Stewardship	\$326,263
Landscape Scale Restoration	\$210,241
State Fire Assistance	\$2,511,041
Urban and Community Forestry	\$639,073
Volunteer Fire Assistance	\$235,395
<b>Total</b>	<b>\$7,996,090</b>

NOTE: This funding is for all entities within the state, not just the State Forester's office.

### Program Goals

- The cooperative programs are administered and implemented through a partnership among the Commonwealth of Virginia, the USDA Forest Service, and many other entities. They promote and protect the health and productivity of forestlands and rural economies. Emphasis is on timber and other forest products, wildlife, water resources, rural economies, community forest, and conservation practices.
- The overarching goal is to maintain and improve the health of community and rural forests and the related economies, as well as to protect the forests and citizens of the commonwealth. These programs maximize cost effectiveness through partnerships in program delivery, and increase forestland value and sustainability in a voluntary and non-regulatory manner.

### Key Issues

- Virginia's forests are under increasing pressure to provide an array of critical services to citizens and the nation. The most obvious benefits are productive jobs, strong communities, and excellent environmental health—including clean water and air, bio-energy, habitat, and buffers for climate change. We strive to equip forest landowners with the information and knowledge to sustainably manage their forests for current and future generations.
- Protecting and maintaining healthy streams and enhancing water quality and quantity are drivers in strategic planning at the Virginia Department of Forestry (VDOF). VDOF supports a unique position among Southern states through a statewide logging inspection audit program and is supporting a Southeastern regional effort to provide consistent monitoring of best management practices (BMP) on silvicultural sites. VDOF monitored 4,623 timber harvests to ensure water quality protection and compliance.
- Rapid urbanization in recent years has greatly increased fire danger in the more than 5,315 at-risk wildland-urban interface areas throughout Virginia. A concentrated focus on improvement efforts in Virginia's highest risk communities, as well as a continued focus on maintaining a high level of agency Readiness, is important to limit the potential for wildfire-related damages.
- Swift and efficient initial attack of wildfire is key to the protection of Virginia's assets. Agency response efforts protect an average of 1,400 homes and other structures annually, with an estimated value of more than \$103 million.
- VDOF has taken the first steps to develop a long-term pursuit of improved hardwood forest management across the Commonwealth. The hardwood forest habitat initiative will help landowners manage their forests to increase natural regeneration of desirable young hardwood trees, such as oak. Improving hardwood management will help protect water quality, enhance wildlife habitat, support recovery of threatened and endangered species, and bolster Virginia's outdoor recreation opportunities.

- Continuing fragmentation of non-industrial private forestlands (NIPF) presents new challenges as the number of landowners needing services increases.
- VDOF was mandated by the five-state Chesapeake Bay Agreement to achieve the adoption of urban tree canopy (UTC) goals by at least five municipalities by 2010. VDOF has engaged 37 communities in assessing their UTC goals and supports the UTC effort with both technical and limited financial assistance. VDOF must maintain interest in UTC in the face of limited budgets at all levels of government.
- Ecosystem services and benefits provided by forests are undervalued. Even with the financial contribution provided by the forest products industry, (\$21 billion annually) losses to the forestland base are unacceptable. It is imperative that we better develop markets for ecosystem services, such as water quality, carbon sequestration, and biodiversity. It is also imperative that we better account for the conservation of these important services.
- Traditional forest industry jobs continue to transition to new markets with globalization. The carbon sequestration market-driven bioenergy sector, for example, continues to be strong. As the economy and the housing sector improve, some forest markets are growing; however, other under-performing markets are negatively impacting forest landowners and industry. Increasing efforts in exports and value-added manufacturing, such as Cross-Laminated Timber and other emerging markets, will be needed.
- Wavy leaf grass has joined tree of heaven, kudzu, and a long list of other non-native invasive plants that are crowding out or killing several native tree species. Additionally, invasive pests are negatively impacting hundreds of thousands of trees. The hemlock wooly adelgid is killing a large proportion of the hemlock trees in Virginia, and the emerald ash borer is devastating the state's ash resource. Gypsy moth and the southern pine beetle are also serious threats to Virginia's forests.
- Despite the economic improvement, VDOF still needs to be aware of challenges and issues that affect our forests and forest industries. Timber harvesting is at record levels and these increased harvests are very positive to Virginia's private forestland owners and the economy. VDOF needs to continue to actively monitor our resource availability and sustainability to ensure that the citizens of Virginia continue to receive all the benefits they depend on from our forests.

## Forest Facts and Accomplishments

Selected Facts	Value	FY 2020 Accomplishments	Value
Population	8,001,024	Landowners Receiving Educational or Technical Assistance	10,147
Acres of Forest Land	16,067,621	Acres Covered by New or Revised Forest Stewardship Plans	56,091
Acres of Nonindustrial Private Forest Land	12,256,000	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	34,554
Number of NIPF Landowners	410,000	Volunteer Fire Departments Assisted	300
Acres of Federal Land Under State Fire Protection	2,217,900	State Fire Communities Assisted	1,220
Acres of Private Land Under State Fire Protection	13,195,300	Coop Forest Health Acres Protected	26,772
Number of Rural Fire Departments	597	Forest Legacy Project Acquisitions	742
Cities and Towns	229	Communities Provided Urban Forestry Program Assistance	130
Forest Based Employment	107,900	Population Living in Communities Provided Urban Forestry Program Assistance	6,599,677
Economic Impact of Forestry (by rank)	3	Urban Forestry Volunteer Assistance	23,244
State Forestry Budget (All Sources)	34,513,853		

## Program Highlights

### Conservation Education

VDOF provides conservation education programs statewide. Outreach ranges from pre-school children to adults via Master Naturalist chapters, landowner education and Project Learning Tree (PLT) facilitator training. VDOF hosts Camp Woods and Wildlife each summer for students ages 13 -16. Local VDOF

work areas actively participate in Envirothons, high school career days and local festivals and events to provide forestry education to Virginians of all ages. VDOF Communication and Education staff collaborate with the Southern Group of State Foresters committees, the NASF and North American Forest Partnership, as well as others to establish robust outreach programs, messaging and to maximize educational resources. The Public Information Office maintains social media platforms (Facebook, Twitter, and Instagram) and an e-publication, Field Notes, to highlight forestry and conservation topics. Faced with the challenges of providing outstanding educational resources within socially distanced guidelines, VDOF converted a significant portion of its PLT efforts to online modules, created virtual tours and activities to support at-home learning, and worked with field staff to create virtual "career day" resources.

### **Cooperative Fire Protection**

State Fire Assistance provides funding to support firefighting resources throughout Virginia. The main focus areas of Cooperative Fire Protection in the Commonwealth include training more than 280 firefighters in wildfire suppression and incident command; development of additional volunteer fire department capacity through federal property programs and Volunteer Fire Assistance grant funding; focused efforts on wildfire hazard mitigation in Virginia's highest risk woodland home communities; and wildfire prevention efforts that use both targeted public messaging, as well as law enforcement efforts, to reduce unwanted fire starts. Specific program areas include use of the Federal Excess Personal Property Program to assist Virginia in acquiring and placing fire equipment in rural communities throughout the state; the use of Volunteer Fire Assistance funding to provide much needed personal protective equipment, tools, and equipment to rural fire departments across the state; and focused efforts through the State Fire Assistance program to reduce the threat of wildfire damages in Virginia's highest-risk communities.

### **Economic Action**

The VDOF is actively involved with partners and other stakeholders to look for new markets to improve utilization of our forest resources. The VDOF continues to improve and evolve its economic development programs in the Southern region. Examples of this include working with Virginia Tech and other partners on emerging markets for low-grade and underutilized wood, including biomass energy; urban wood utilization; Cross-Laminated Timber (CLT) production, and specialty forest products. To help with forest management on small forest acreages and urban/suburban forests, VDOF and partners provide business development workshops to address the lack of service providers that work in these areas. A database of forestry service providers focused in these areas continues to expand, adding new businesses monthly. To diversify forest-based economic development in the state, workshops and research are being conducted on specialty forest products such as biochar, and developing potential uses for *Ailanthus* and other invasive species to assist with control efforts. An updated economic study was recently completed that highlights the importance of forestry and the forest industry in Virginia. VDOF is promoting forest industry and products domestically and internationally through membership in or partnering with agencies and groups such as the Virginia Economic Development Partnership, Virginia Department of Ag and Consumer Services, the Virginia Biomass Energy Group, the Virginia Forestry and Forest Products associations, Virginia Loggers Association, the Southern Group of State Foresters Services, Utilization & Marketing Committee, and state universities.

### **Forest Health Protection**

Southern pine beetle (SPB) populations remain low. The VDOF's pine bark beetle prevention program (in cooperation with the USFS Forest Health Protection Program) completed its 16th year in 2020. Since its inception, over 60,000 acres of prevention thinning have been conducted to lower the risk of bark beetle infestation in the state's pine belt. In hardwood forests, Virginia continues to experience oak decline, the gradual failure in the health of oak trees that results from the interaction of a variety of biotic and abiotic factors such as old age, site conditions, drought, and defoliation. Gypsy moth is a common defoliating pest in western Virginia, but populations have been low the past three years, most likely due to the prevalence of a fungus that infects and kills gypsy moth larvae. The emerald ash borer is a major threat to the ash resource and has been confirmed in 81 counties. The Commonwealth's hemlock trees continue to decline due to the hemlock woolly adelgid. The release of biological control agents of the emerald ash borer and the hemlock woolly adelgid offers long-term hope of preserving ash and hemlock trees across the landscape. A new pest, the spotted lanternfly, was first discovered in Virginia in 2018. This invasive insect feeds on over 70 host plants and is a threat to multiple industries. Currently, the area of infestation includes the city of Winchester, and Frederick and Clarke counties. In addition, wavyleaf grass has joined

the long list of non-native invasive plant species that are negatively impacting the state's forest resources.

### **Forest Legacy**

VDOF, partnering with The Conservation Fund, the Land and Water Conservation Fund, and other state conservation programs, completed a 2,531-acre land purchase to establish Virginia's 26th state forest in Charlotte County. The Forest Legacy Program provided \$3 million, half of the total acquisition funds, via the FY20 Roanoke River Working Forest Project grant award. Management of the new state forest is centered on sustainable timber production, water quality protection and public recreation access. The VDOF, with support from The Nature Conservancy, purchased a 742-acre conservation easement in Sussex County, with 1.75 miles of Nottoway River frontage. The Forest Legacy Program provided \$450,000, half of the total acquisition funds, via the FY18 Nottoway Pinelands grant award. The conservation easement achieves permanent forest retention on the tract, with two-thirds of the forest available for sustainable timber production and the remainder one-third to be managed as old growth bottomland hardwood that is adjacent to a state natural area preserve. Two active Forest Legacy acquisition projects remain underway at the close of this reporting period: FY18 Nottoway Pinelands project (Sussex County) and FY19 James River Headwaters project (Highland County). Progress made during the reporting period includes initiating all due diligence activities and finalizing negotiation of conservation restrictions for the remaining project tracts.

### **Forest Stewardship**

The Forest Stewardship program continues to equip and support VDOF field foresters to help private landowners plan and improve management of their lands. This planning process enables the VDOF foresters to help the landowners see beyond their immediate objectives to a more holistic, multi-resource based management to meet their long-range goals. The benefits derived from the forest stewardship plan extend far beyond those enjoyed by the landowners. Every citizen enjoys clean air, clean water, wildlife habitat, soil and water conservation, aesthetics, and recreational opportunities afforded to them by healthy, sustainable forests. VDOF continues to nurture a strong partnership with Virginia Tech, through Stewardship funding, to provide outreach information and training events to forest landowners. Significant events have included forest landowner retreats, outreach to real estate professionals, bus tours, electronic newsletters, and various online and in-person and virtual workshops.

### **Landowner Assistance**

VDOF continues to provide information, recommendations, and technical assistance to landowners in managing their forest resources. VDOF field foresters and technicians work closely to develop practice plans and provide guidance to implement these plans. This is often done in concert with forestry service contractors and consulting foresters. VDOF operates two seedling nurseries, with a capacity of more than 30 million seedlings, used to support very active reforestation and conservation programs. One such program is the Virginia Reforestation of Timberlands Program which has provided pine reforestation assistance to landowners for 50 years. Since its inception, this unique program has been a cooperative effort of Virginia's forest industry and the state's General Fund that puts private and state tax dollars together to ensure Virginia's forests will grow well into the future. VDOF is also developing a hardwood forest habitat initiative, which focuses on training, demonstration and outreach leading to implementation of improved practices. Currently efforts are concentrated on defining the program's parameters and training a cadre of VDOF foresters who will take the hardwood banner into the future. VDOF is working closely with the USDA, state, and private partners to reinvigorate the riparian forest buffer establishment program in the state. Currently, VDOF foresters can guide landowners to one of the two private programs or the three state and federal programs that best meets their needs. Virginia's forested buffers play a key role in protecting water quality, improving wildlife habitat and agricultural conservation, and ultimately improves and protects the nation's largest estuary, the Chesapeake Bay. Significant activity with federal, state, and private partners is taking place in southeast Virginia with efforts to restore the nearly extinct longleaf pine ecosystems. Additionally, there is growing interest in restoring shortleaf pine.

### **Landscape Scale Restoration**

VDOF was a partner in the Coast Heirs Landscape Scale Restoration (LSR) grant, which resulted in enhanced collaboration with minority forest owners. In addition, VDOF participated in the Upland Oak LSR grant which is closely allied with the Virginia Hardwood Initiative in which VDOF focuses efforts on training and establishing demonstration areas. LSR grant funds will also be used to design a Virginia Literacy Plan, based on the Texas model and customized to Virginia with the help of stakeholders. The plan will outline critical knowledge and messages about forestry for all ages and provide a blueprint for

training agency staff to effectively share these messages, and integrate other ways in which the agency and partners share forestry messages with Virginia citizens. The 2017 LSR grant "Surviving the Wave of Emerald Ash Borer in the South" is another great example of innovative projects funded in Virginia; it was used to implement a VDOF ash treatment cost-share program to protect high value specimen ash trees and preserve ash on the landscape and was followed by the 2019 LSR grant "Grand SLAM: Slowing Ash Mortality in the South" which funds the continuation of the VDOF ash treatment cost-share. In addition, it funds the treatment of ash trees on state lands, and also supports outreach with minor league baseball teams to educate the public about the threat of emerald ash borer and the importance of not moving firewood.

### **Urban and Community Forestry**

The VDOF, through a partnership with the USDA Forest Service, provides communities with technical, financial, and educational support so they may plant, protect, and maintain community trees and forests. In FY20, VDOF's program assisted 130 communities including 58 with the Tree City USA designation. VDOF provided planning assistance for several underserved communities through the Virginia Tech Community Design Assistance Center. VDOF and Trees Virginia provided educational opportunities at multiple venues across the state. Trees Virginia maintains a scholarship program for 2-year, undergraduate and graduate level students in natural resource fields. VDOF sponsors the Virginia Natural Resources Leadership Institute, which takes participants through a process of investigating various environmental issues and leadership training. VDOF continues its leadership with the Urban Forest Strike Team (UFST) by training state personnel in protocols to evaluate tree damage following natural disasters. The UFSTs have responded in Florida and Alabama during the past year after Hurricane Sally, and recently expanded their focus to include invasive species response after assisting the Virginia Department of Agriculture and Consumer Services with spotted lanternfly. VDOF continues to assist the International Society of Arboriculture (ISA) to promote the Certified Arborist Program by hosting trainings each year and providing scholarship funding through the local Mid-Atlantic-ISA chapter. VDOF has engaged 42 communities in the process of establishing urban tree canopy goals to help meet Virginia's Chesapeake Bay Agreement commitments. Also, VDOF continues to support the evaluation of utility-friendly tree cultivars under its Municipal Tree Restoration Program. Through the Virginia Trees for Clean Water program, 70 communities and/or non-profits across the state have received over \$331,000 in grant funds for tree planting.

### **Water Quality**

VDOF has been involved with protecting our forested watersheds since the early 1970's with the development of our first set of Forestry Best Management Practices (BMPs) for water quality. VDOF utilizes the fifth edition of those guidelines, which came out in 2011. The backbone for VDOF's water quality effort is the harvest inspection program, which began in the mid-80's. This program has provided for one-on-one contact between VDOF and the harvest operators and is a welcomed opportunity to instruct the operators about BMPs and the latest water quality protection techniques. In fiscal year FY20, VDOF field personnel conducted 20,197 field inspections on 4,623 timber harvest sites (4.4 inspections per site) across Virginia on 204,878 acres. Another main focus of the VDOF water quality program is logger education. This occurred through training that the agency sponsored and recently, through VDOF participation in the SFI program, has enabled VDOF to assist in training 10,317 harvesting professionals in 347 programs related to water quality protection since 1997. In FY20, 21 training programs were offered, reaching a total of 604 individuals. Five of these courses were in the core area (109 attendees) and the remaining 16 courses were for logger continuing education (495 attendees). Results from the calendar year 2019 data show that BMP harvest median implementation rate on 240 randomly selected tracts is 95 percent (the harvest median score is the best judge of central tendency of the tract score). The audit results also showed that 100 percent of the sites visited had no active sedimentation present after the close-out of the operation. Calendar year 2020 BMP Implementation data is currently being analyzed and will be available in February 2021.

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